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COMMUNICATIONS.

"WATERPROOF PAPER."

A NEW PREPARATION TO TAKE THE PLACE OF OILED SILK AND SIMILAR ARTICLES.

BY W. W. KEEN, M.D.,

Surgeon to St. Mary's Hospital, Philadelphia.

Some years since I introduced into St. Mary's Hospital the use of waxed paper as a substitute for oiled silk. We have made it in the hospital ever since, and it has served its purpose in part. It is certainly a very cheap substitute, but it tears readily, cracks when folded, absorbs the moisture of the dressings or discharges, is not, therefore, waterproof, and is too thick and clumsy. In the antiseptic dressings, of course, it is valueless. I have tried a number of other papers, prepared with paraffine, varnish, etc., but they have all been unsatisfactory—the paraffine paper being, however, the best of all. The successful combinations of rubber with various substances in plasters lately suggested to me the combination of rubber and paraffine for paper dressings. Accordingly I wrote to Messrs. Seabury & Johnson, of New York, and requested them to prepare some samples of such paper for me to try. They promptly did so, and I now submit the results.* If further practical use of the "waterproof paper" confirms the advantages shown by my experiments and trials thus far, I think we have now a very *cheap* and very *efficient*, and in some respects a *superior* substitute for oiled silk; especially is this so for hospital use, where economy is of so much importance and the cost of oiled silk so great.

I have carefully compared the following articles:—

1. Waterproof paper,
2. Oiled silk,
3. Oiled muslin,
4. Taffeta oiled silk,
5. Paraffine paper,
6. Waxed paper,
7. Gutta percha tissue, as to

(*A*) Permeability to water and air.
(*B*) Effects of heat.
(*C*) Mechanical fitness.
(*D*) Cost per square yard.

(*A*) *Permeability to water and air.* This I tested first, by making a funnel, filling it with water, and seeing how soon the water filtered through.

1. Waterproof paper. After 72 hours not a drop had passed through. To test it still more thoroughly, I took a piece of the paper, crushed it up in a ball, unrolled the creased and apparently cracked paper, repeated this crushing four times, and then tested it as before. It was just as satisfactory. The rubber preserved the integrity of the paper at the creases, and not a drop filtered through during a test of 48 hours. While floating on water at 153° (see below) a piece of the paper was quickly taken out and folded into a funnel, with marked creases, and filled with the hot water (153°). None had filtered through after a six hours' test.

It will be noticed that it is not only waterproof, but does not *absorb* any fluid. The advantages from non-absorption of discharges, whether sweet or foul, need only be stated.

To test its permeability as to *air*, I placed a sheet of the paper close before a candle, and

* The paper can be had of Wyeth & Bro., in this city.

directed a strong current of air against the paper by the mouth, by a syringe, and by a Politzer air bag. When the effect of currents from the air which escaped around the edges of the paper was obviated the candle flame was not affected. The same result was obtained after alternately crushing the paper and unrolling it three times, showing that no appreciable mechanical break had occurred.

2. Oiled silk. Water filtered through within less than half an hour. The silk was of the best quality, freshly bought, and folded carefully, so as not to break it in making the funnel.

3. Oiled muslin. Filtered through in ten minutes.

4. Taffeta oiled silk. Filtered through in an hour.

5. Paraffine paper. Filtered through in one and a half hours.

6. Waxed paper. Filtered through in twenty minutes. If carelessly folded, so that it broke at the creases, the water filtered through at once.

7. Gutta percha tissue. After forty-eight hours no water had filtered through.

(*B*) *Effects of heat.* This I tested by filling a tin pan with water to the depth of 2½ inches, placing in it a thermometer (Fahr.) and raising the temperature by an alcohol lamp, gradually, from 70° up to 170°, while pieces of the various substances floated on top. The lamp was constantly moved about, so as to avoid heating the water unequally at various points. Every minute or two these floating pieces were tested, by pinching them up in a mass, to see if their surfaces adhered; if they did so, they were removed quickly from the water (a process which became naturally more advisable as the heat increased), and the folds separated, to see how firmly they adhered, or if they tore. Their cooling on removal from the water necessarily and quickly increased the adhesions.

1. Waterproof paper
At 143° began to stick loosely when pinched.
At 148° began to adhere tightly.
At 153° began to adhere so tightly as to tear when unfolded.
At 163° began to adhere to the hand, as the paraffine was beginning to melt.

2. Oiled silk. 3. Oiled muslin. 4. Taffeta oiled silk. All non-adhesive up to 170°. Not tested further.

5. Paraffine paper. Was wetted by the hot water; lost its consistency and tenacity. Adhered so as to tear at 145°.

6. Waxed paper
At 115° began to stick.
At 122° began to tear, and above this heat was useless.

7. Gutta percha tissue
At 102° began to adhere and to curl up at the edges.
At 109° adhered so as to be separated with difficulty.
At 112° shriveled up, adhered firmly, and was worthless.

In order to judge of the relative value of the dressings as coverings of poultices or other hot applications, I made some flaxseed poultices, as large as my hand, about 1¼ inches thick, inserted a thermometer (Fahr.) into them, and applied them to the inside of the forearm at various temperatures, with these results:—

A poultice below 115° felt too cold.
From 115°–125° felt warm.
From 125°–130° felt hot.
From 130°–135° felt very hot.
Above 135° became unbearable.

It will be seen, therefore, that gutta percha tissue, waxed paper and paraffine paper (as experience shows) are worthless as coverings for poultices, while all the rest will answer well. Experience only confirms also the excellent results attained by the waterproof paper for this purpose. It fulfills every indication.

(*C*) *Mechanical fitness.* The oiled silk in these respects is the best, being tough and yet pliable. Taffeta is too easily torn, and muslin is too stiff. The paper dressings of all kinds are rather easily torn, or if made of thick paper, they are too stiff. Made of manilla paper, they are flexible, yet strong, and do not tear so readily as when made of tissue paper. I am now having some Japanese rice paper prepared, which I hope will be strong, and yet pliable. But the waterproof paper has the advantage that if special suppleness is desired in any case, it can be crumpled and mashed into perfect flexibility without impairing its other good qualities.

For the Lister dressings I judge (for I have not yet so tried it) that it will do just as well as the Mackintosh cloth, and be vastly cheaper. The purpose of the Mackintosh is to exclude mechanically all communication between the outer air and the discharges. As this paper has no holes in it, even after repeated crushings, and so is impermeable to air, is also impermeable to water, and does not absorb it, it would seem to answer every indication.

(*D*) *Cost.* The relative cost of these articles is about as follows:—

Oiled silk, per square yard, $1.50.
Oiled muslin, 75 cents.

Taffeta oiled silk, 60 cents.

Gutta percha tissue, 60 cents.

Paraffine paper, 36x24 inches, about 1 cent.

Waxed paper, 36x24 inches, about 1 cent.

Waterproof paper will probably cost less than 2 cents. It may be much less when made in quantities, and with increased facilities.

Briefly stated, then, the advantages of waterproof paper are—

1. It is impermeable to water for 72 hours, at the least, even after being repeatedly creased and crumpled.

2. It is impermeable to air in similar conditions.

3. It does not absorb water or discharges.

4. It may be used with the hottest dressings that can be borne.

5. It is flexible and yet strong enough for all ordinary wear, especially as it will only be used once.

6. Its cost is many times less than that of other similar dressings.

EUONYMUS ATROPURPUREUS.

BY J. R. BLACK, M.D.,
Of Newark, O.

The mechanical inventor who originates a device that fills a general want is assured of a fortune, if not of fame; so, also, is the author or writer in therapy assured of some fame and less fortune by the introduction of an improved method for the removal of disease. Unfortunately, comparatively few writers seem to have an eye for the most crying wants of the profession or of the therapist. One writes because he is a medical teacher, and likes to advertise his school or himself; another is vain of his literary accomplishments and likes to display them; another desires to be regarded as a noted specialist, and so writes to draw patronage; a few write, and write only, when they have something really worth saying and worth reading. As to the filling up of books and journals, the general wants are little studied, and very seldom well met. Half our books are only reproductions, with slight variations, of each other, and the originality of many might be easily put in less than the compass of this journal. Not a little of what is deemed originality amounts to nothing more than novelties or eccentricities of opinion, of small or no value to any one, as they are not proved verities, but mere unwarrantable assumptions, vague speculations, or hasty and one-sided deductions. They often have no relevancy to the urgent needs of therapy, are spoken of by readers to-day and forgotten to-morrow, and thus, with slow, ever devious, stumbling steps, does medical science thread its labyrinthal way. I, you and he read medical writings, not for entertainment, not as a pastime, not as a needed prop to a fulsome self-glorification of our dignity as a profession, still less to know what a great personage Dr. A. or B. is; but in order to know if what we cannot do very well cannot be done better; if, in short, our failures cannot be turned into successes. The relation of rare and extraordinary instances of disease or of injury, and of operations for their relief, have an abstract interest to all, but to nineteen-twentieths of the profession not the slightest practical value. The ordinary practitioner may practice for half a century and never see the like of one of them; he may treasure up some surgical novelty or expedient, and not have an opportunity to put it in practice for a score of years. What he really needs, what he longs for, is the ability to subdue, to better advantage, some disease with which he is brought into daily contact, some disorders in which his success is far from commensurate to his ambition or desires. To learn how to avoid mortifying failures or indifferent success in every day duties, far more than how to meet extraordinary emergencies, is a much craved boon. There are many urgent wants for better methods in therapy, and when a person fills such a want, by at least an improved method, as did Dr. Sayre for joint phlegmasias and spinal curvatures, he is entitled to everlasting gratitude, and more substantial reward.

An ordinary, far less notable, and yet much more common want, was recently attempted to be filled by a Dr. Bundy, of California, by the recommendation of the cascara sagrado or rhamnus purshina, as a remedy for dyspepsia and habitual constipation. From not a little observation, I am convinced that the exaggerated statements about this agent in certain medical circles, not referring to the strife among pharmacists, do not arise so much from the merits of the article, but simply that it meets a common every day need a little better than most other known agents administered for a like purpose. When medical men are perplexed as to the need of a satisfactory remedy for a very common ailment, they are always thankful for suggestions, and it is upon this, far more than aught else, the momentary notoriety of the above article depends.

Having too often seen the errors and mistakes arising from our hasty opinions as to the power of a medicine over disease, and above all sedulously avoiding being influenced by the medical fashions of each decade—for such there are,

having their rise, fame and fall—I have been slow in publishing my observations in reference to one of the many agents long used by me—not in common use—as a remedy for certain forms of digestive derangement. I am incited to publication at this time by the commercial extortion and exaggerated fame of the recent California contribution to the materia medica, when all the time there is prepared, and before our eyes in every drug house, for many long years, an extract in almost every way superior to the cascara, for the same therapeutical purposes, and at a price within the reach of all. I, of course, allude to the fluid extract of the shrub at the head of this article. To not a few, the statement that in wahoo we have one of the best stomachic tonics and laxatives, or cathartics, according to the dose, of the materia medica, may appear somewhat new. In fact, the newness to others of my long time observations on this head was forcibly impressed upon me not long since, while speaking of the medical qualities of euonymus to an old and revered physician, who replied: "Why, I thought its qualities were mainly diuretic!" Well might such an idea exist as to its therapeutic quality, when the only disease for which it is recommended by the U. S. Dispensatory is dropsy. H. C. Wood does not mention it at all, nor does Pareira. Bartholow, in the half dozen lines devoted to euonymus, is the only author* who properly designates its properties and uses, though he leaves the reader to ascertain for himself the precise indications for its use.

Having prescribed euonymus almost daily for the last fifteen years, I have failed to see the evidence of its action as a diuretic. It is true that when administered quite freely, and it fails to act as a cathartic, which is very sure, a perceptible increase of the renal secretion may be sometimes observed, just as the same may be seen under like circumstances after any other purgative agent.

As I have been in the habit of prescribing euonymus almost exclusively for lingering disorders of the digestive organs, and in the form of the fluid extract, it is of its therapeutical effects under such circumstances that I am able to write understandingly. Taken in appropriate doses, the immediate effects are slightly stimulant, almost like an exhilarant, which may last from one to three or four hours. Not, be it understood, similar to alcoholic stimulation, but a far milder and more durable feeling of vigor—not succeeded by the reaction of depression. The effect is far more like a quick acting tonic. In thinking of this, however, I am at a loss to discern whether this subordinate effect is really the outcome of an enhanced exaltation of vital action, or whether the more potent effects of a proper dose, in slightly morbid states, may not arise from its virtues in freeing the *primæ viæ* of the depression of inaction, or from the presence of effete matters inimical to a buoyant life. Be this as it may, the heavy, languid depression, the indisposition to mental or muscular action, often disappear like magic, in certain morbid states of the digestive organs, under its influence.

Taken in doses of half a drachm to a drachm, according to individual susceptibility, before breakfast, the euonymus acts as a gastric tonic, cholagogue and mild cathartic, and usually within two hours after its administration. Its action is unattended by nausea, griping, or any debilitating influence. This is its effect, not in the stereotyped, vague expression, on some, but on those in whom there has been present a more or less lingering gastric, hepatic and intestinal torpor. Administered to subacute cases of functional inactivity of those parts, the dose sometimes has to be repeated every three or four hours before desirable action is reëstablished, when the effect is far more that of an active, frequently repeated cathartic. The stools indicate the large presence of bile, and of the feculent secretion of the intestinal follicles. It does not cause, like podophyllin, violent vermicular motions of the stomach and bowels, thereby producing nausea, griping, and large discharges of gelatinous mucus, through irritant action. It is preëminently the most unobjectionable of cathartics to overcome habitually loaded abdominal viscera, not, however, in acute exacerbations, but in those of a more lingering character. Especially is it of eminent service when, from a variety of causes, hepatic and intestinal torpor are conjoined. In these instances it should not, of course, be given more than once daily, and in amount sufficient to produce not more than one or two evacuations. Continued use does not habituate and blunt the system to its energy, consequently the dose does not require to be increased; in fact, as a rule, rather decreased.

For habitual constipation, two rules should be observed in its administration: first, to give only

*By the way, the "Ohio idea" is very general among the practical men of this section, that the physicians of the west are far more progressive and advanced in the practice of medicine than their more conservative brethren of the east, though in surgery the palm must be yielded to the latter; and that by and by the former will run the practice of medicine, just as they now do the Government.

enough to produce one or, at most, two evacuations per day; second, to order it to be taken with regularity at a certain time of each diurnal period. In the morning before breakfast is that usually preferred. The objects of these rules are to avoid begetting debility by over action, and to establish a habit of regular feculation. Of course, special indications require special combinations, of which nux vomica, in certain states of motory enervation, is an example; but for ordinary and simple cases the following is a convenient form:—

℞. Ex. euonymi, fluid, f. ℥ iij
Syr. aurantii, f. ℥ j. M.

Sig.—One teaspoonful before breakfast.

If the debility and torpor are somewhat extreme, a dose may be taken before each meal, in which case half a teaspoonful is almost always amply sufficient.

From careful comparison, the euonymus has precisely the same therapeutic virtues as the so-called cascara sagrado, only decidedly more active, not only as a tonic, but as a corrector of hepatic languor and defective intestinal secretion. In large doses it is capable of a hydragogue effect, perhaps less distressing and prostrating than almost any other agent producing a like effect. It is here proper to remark that the fluid extracts in the market are of unequal strength. That of Parke, Davis & Co., for instance, prepared, apparently, from the bark of the tree, is only half the strength of that prepared by Wyeth & Co., extracted from the bark of the root. It is of the latter on which my observations are founded.

In summing up, it may be said that in euonymus we have an invaluable gastric tonic, mild cholagogue, pleasant laxative, or cathartic, according to the dose. It is admirably adapted for correcting deficient secretion and excretion of the intestinal follicles, for toning gastric atony of a non-inflammatory type, and for accelerating biliary outflow, and so ridding the system of the depressing effects of an almost habitual hydrocarbonaceous excess. It is not a diuretic, nor an alterative, any more than any remedy with similar gross effects is an alterative. It is not, as a rule, adapted to the treatment of acute, or even subacute diseases, but for many of the lingering forms it is simply invaluable; and to those who have long used the euonymus and its congeners, and know their great value, the enthusiasm of some as to the rhamnus purshina as a remedy of unique qualities provokes a smile at the poverty or backwardness of their therapeutical knowledge.

A TERRIBLE BURN AND ITS TREATMENT.

BY C. H. MERRICK, M.D.,
Of Canyonville, Oregon.

I think my recent experience with a severe case of burn will be of service to the profession. The morning after Christmas of last year, Simon Patchen, about fourteen years old, in some unaccountable manner, found his way out of a burning building, where he had been sleeping. In passing through the flames, and feeling his way down stairs, he was shockingly burned. I saw him about an hour after his escape. He was screaming with agony. Without stopping to examine the extent of his injuries, I immediately plastered him from head to foot with a thin poultice of ground slippery elm and pulverized charcoal. Relief from pain was almost instantaneous; so marked was this that I began to fear collapse and death.

This respite gave me time to think, and during the next twelve hours I endeavored to ascertain how badly my patient was burned. But it was not until the second or third day that I fully realized the extent of his injuries. I then made up my mind that the chances for recovery were exceedingly small. Looking at one of his hands, and planning as to what method to adopt in its amputation, I finally put it down, and said to myself: "Wait awhile. Death will soon end his sufferings." The boy was in a terrible condition, truly. With the exception of his chest and abdomen, and the inside of his thighs, he was burned all over. For more than a week I continued to apply the charcoal poultices. Gradually I substituted the ointment so much praised by Dr. A. D. Binkerd (see MEDICAL AND SURGICAL REPORTER, July 9, 1870), using on parts of the body the glycerine and carbolic acid treatment.

Of course, every surgeon of experience knows that no uniform line of treatment can be followed in extensive burns. I need only mention the different articles I have employed, according as the circumstances demanded. I used chloral hydrate externally and internally with good effect. Belladonna, locally, quieted nervous spasmodic twitchings. Soda sulphas I found to be an excellent topical application, subduing inflammation, and, I think, repressing exuberant granulations. Permanganate of potassa washes were applied as a disinfectant. It is proper to caution the younger members of the profession in regard to carbolic acid. The tendency is to use a too strong solution. I am satisfied I committed that error once or twice in this case.

To those of your readers who may not have the number of the REPORTER referred to, I will state that an ointment made of beeswax, mutton tallow and linseed oil or glycerine, in such proportions as will secure a soft, pliable mixture, should ever be ready in the treatment of burns. Such an ointment forms the foundation of various other varieties likely to be wanted, such as the addition of tannin, bismuth, carbolic acid, belladonna, plumbi acetas, etc., will produce. Another caution: Resist the temptation to remove dressings unless they are perfectly free. Never use any force in their removal; rather allow them to slip off themselves, then apply immediately appropriate new dressings.

An attempt was made to use oakum, but owing to the coarse quality at hand the result was not satisfactory. I am inclined to believe, however, that finely carded oakum would be preferable to cotton in the treatment of suppurating surfaces.

My patient, now in the eleventh week, is nearly well, a narrow strip on his thigh being the only uncicatrized spot. His hands are thin and scrawny, but bid fair to be of service to him. It is no exaggeration to say that not one case in a thousand so badly burned ever escaped with life; and it is a wonder to all who saw the boy during the first week, that so few traces of shrinking and ugly deformity, the usual result of severe burns, remain.

CHLOROFORM IN CONVULSIONS OF INFANTS AND CHILDREN.

BY J. D. BLAKE, M.D.,

Of Baltimore, Md.

Certain it is, that we are called upon to treat few diseases that are more formidable or more fatal than convulsions of infants and children. The great number of deaths from convulsions, especially of infants, which we constantly find in all of our mortality returns, I think will bear witness to the above statement, for correctness. Not desiring, however, to enter to any great extent upon the question of the nature of the different types or forms of convulsions of early life, I shall content myself at this time with referring to the general opinion of pathologists of the present day, that by far the greatest proportion of infantile convulsions are sympathetic or functional merely. "The grand reason (says Dr. West) of their frequency is, no doubt, to be found in the preponderance or predominance of the spinal over the cerebral system in early life. Thus it is, that in a large majority of cases of convulsions we find the cause due to some morbific agent acting upon some distant excitant surface or part, as the teeth, stomach, bowels, etc., there being, as a rule, no organic lesions found after death." Consequently, in cases of infantile convulsions, particularly when of a sympathetic, reflex or eccentric type, after removing all traceable exciting source of irritation, and diminishing as far as possible any excess of vascular action in the nervous centres, physicians have generally proceeded to combat the disease, if it still persisted, with medicinal agents, that tended to reduce the super-irritability of the excito-motory system, or otherwise to restore it to a proper and healthy standard of action.

To fulfill this indication, preparations of different kinds have been used, such as chloral, bromide of potassium, the different preparations of opium, hyoscyamus, and other antispasmodics too numerous to mention. And yet, notwithstanding these and the long list of other preparations used and recommended by physicians, we are constantly called to cases of infantile convulsions over which these remedies seem to exert but little, if any, control; indeed, in a large number of cases we find it an impossibility to administer any medicine whatever, from the continued muscular jerking and spasm of the jaws. In such cases it is customary to look to the condition of the skin, bowels, head, etc.: thus we use enemata, warm baths, cold to the head if indicated, and sometimes when not. This is all that is left us to do, and this, in many instances, rather to relieve the great anxiety of the parents and relatives, than the condition of the patient. There is no doubt that there is a goodly number of cases relieved or moderated by such remedies as above spoken of. But these are not the cases of which I wish to speak at this time. It is of those cases which we find do not yield to such remedies; in other words, the chronic or subacute form of convulsions, which, on account of their duration, exhaust the little patient to such an extent as to prevent its recovery, even if it should outlive the convulsions.

In order that I may more fully explain myself, I shall relate a few cases, selected from fourteen, in which I have taken special note, and in which I have used chloroform with so much benefit to my little patients and satisfaction to myself.

CASE 1.—March 13th, 1877, I was called, about three P.M., to see a little son of Mr. K., eight months old. When I arrived at the home of my patient I found him in violent convulsions, affecting, at that time, both sides, at other times only one side. Upon inquiring, I was informed by the mother that Dr. I., their family physician, had

been called early in the day, and had prescribed for the patient, gave it an enema and a warm bath, after which he left, saying that the convulsions would soon cease. The Doctor was giving one-twelfth grain of calomel, with one grain of sugar, every half hour. In addition to this, he ordered potassium bromide and chloral, with tincture of hyoscyamus and syrup, to be given in half teaspoonful doses every hour, if the clenched teeth or convulsion did not prevent, which they did, consequently none of the medicine could be given. Finding the convulsions did not cease, the mother gave it a mustard bath, applied mustard to the spine, feet, hands, legs, etc. Notwithstanding all this the convulsions continued, more violent at times than at others. The patient at this time was bathed in perspiration; pulse so rapid that to count it was impossible; pupils dilated. Knowing that he was becoming rapidly exhausted, I immediately ordered half an ounce of Squibb's chloroform, which I allowed him to inhale from my handkerchief until he was perfectly relaxed and the convulsive movement had entirely ceased, which I do not think took more than two minutes from the time I commenced the inhalation. The pulse now became more regular and full, the breathing was calm and easy, and the child passed into a sweet sleep, from which it did not awake for thirty-six minutes, at which time I noticed a slight twitching of the muscles of the face and eye. I again applied the handkerchief, only allowing him to take an occasional whiff, when he again fell into a quiet sleep, and remained so for three-quarters of an hour. In the meantime Dr. I. arrived, and seemed somewhat surprised to find that his prescriptions had failed to relieve the child, but expressed satisfaction with the result of chloroform in the case. He said he had never used it in such cases, but thought he would in future when such cases presented themselves. I then resigned the patient to Dr. I., who told me next morning that he had no further trouble. The patient, he said, awoke much refreshed, took a little nourishment and went off to sleep again, from which he did not awake for two hours. He made a rapid recovery.

Case 2.—On the night of June 17th, 1878, I was summoned in great haste to see a fourteen months old daughter of Mr. L. B., who, I was informed upon arriving, had been in convulsions since early in the afternoon; their family physician, who was a homœopath, had used all of his remedies without benefit; in addition, the child had been put in a warm mustard bath, an enema had been given, the bowels had moved freely, it had vomited after an emetic had been given, and yet the convulsions continued, and at times very violent; so much so that the physician gave the case up as hopeless, saying it could not recover. I used chloroform here as in the other case, with almost equal success. The child having been placed thoroughly under the influence of the anæsthetic, I found the pupils, which were widely dilated, had contracted down almost to the normal condition; the pulse, which was thread-like and so quick that I could not count it, became full and much slower; the respiration became slower and more natural. In this case, however, I had to renew the inhalations three times, as the convulsive movements would return as the effect passed away. On the third application of the inhaler, however, the child remained asleep for more than an hour, when it awoke, with no return of the convulsions, took a little water, went off to sleep again, arousing two and a half hours later. With the exception of being restless and a little fretful, she made a rapid recovery. Now, there are many other cases that I might relate, but this I think will suffice to prove the efficacy of chloroform in such cases; and especially so, as all the usual remedies had been used without success.

There is another class of cases in which I think chloroform serves both to control the convulsive movements and aid materially in making our diagnosis. The following case will illustrate my meaning: I was called January 2d, about 1 o'clock, A.M., to see a nine-year-old son of Mr. L., who was taken with convulsions about midnight. The cause was unknown, as he had never had convulsions before. I ordered an enema, also a warm bath, in addition to one he had received before my arrival. The bowels moved freely; the convulsions continued without the slightest abatement; I could get nothing into his mouth. I ordered chloroform, which I used as before, always keeping up the inhalation until the convulsive movements ceased entirely. When this took place, however, in this patient, I had the satisfaction of seeing him become excessively nauseated, followed by copious vomiting. Upon examination of the matter vomited, I found it to contain large quantities of *peanuts*, pieces of candy, and undigested food, which the boy had obtained the evening before by visiting his grandparents without the knowledge of his parents. After the stomach was evacuated the boy had no more convulsions, but was able to get up and play around the next morning. Now, had I known the cause of the convulsions, or the contents of the stomach, I

know of no means by which I could have administered an emetic which would have acted so promptly, so easily and so satisfactorily as did the chloroform.

It is a well known fact that chloroform possesses the property of diminishing the power of the nerves in receiving and communicating, and of the brain in perceiving, sensation, whether arising from internal or external causes; it further arrests the reflex action of the spinal cord. This being its action, we do not think the day far distant when chloroform will be universally recognized as the remedy par excellence in convulsions of infants and children.

METEOROLOGY AND EPIDEMICS.

BY P. J. FARNSWORTH, M.D.,
Of Clinton, Iowa.

The meteorological element of epidemic disease has been frequently studied, but the data have not been sufficient, and its importance has not been well enough considered. This seems to me apparent in the reports and investigations in regard to yellow fever.

Malaria is generated by heat and moisture. It arises in low, marshy districts, and also in new countries, where a large amount of vegetation is decomposing under the influence of rains and continued heat. Marshes in hot weather breed the poison producing ague and intermittent fevers, and so, also, do the prairie and woodlands, under the influence of high temperature and frequent showers.

I have resided in the eastern part of the State of Iowa for the past fifteen years, and have, for the greater part of the time, kept a meteorological journal, and also noted prevailing diseases. The heated term occurs in July, and five or six of the years have been characterized by excessive heat. There are no marshes in the vicinity, and the malarial diseases seem to come from the other condition mentioned.

During the very hot and dry weather the health of the community is very good. The temperature moderates and there follows a showery season, sometimes a large rainfall, at others not copious, but frequent; malarial diseases then become prevalent, and are a factor in all the cases to which we are called. In 1866 the germs of cholera were added, and we had numerous cases in 1869. Typho-malarial fevers were very prevalent. In 1872 we had such conditions, and ague and intermittent fever, in a mild or severe form, attacked two-thirds of the people of the city. It prevailed over the State, and in many places was complicated with typhoid.

The summer following (1873) the same atmospheric conditions were present, and malarial and typho-malarial fevers prevailed, but not in so marked a degree as in the previous season. There then followed some cool summers, and we had no epidemic of malarial fever until the season of 1878. July was characterized by extreme heat, followed by a dry month of August. Malarial fevers, of a mild type, were very prevalent during that month and part of September.

Prof. Henrichs, of the State University, has an organized system of weather reports from some seventy stations in different parts of the State, which showed a very unequal distribution of the rainfall. In some parts of the State it was excessive. Some circulars were addressed to physicians at the weather stations, inquiring of them about prevailing diseases during the months of July, August and September. July was a very healthy month, but August and part of September showed a general prevalence of ague, intermittent and typho-malarial fever. The drier portions of the State suffered equally, evidently because the atmosphere in other portions was largely contaminated with the germs of malaria, which extended. In places where sanitary conditions were bad, diarrhœa, dysentery and typho-malarial fevers were reported. The summer complaints of children do not seem to be governed by these atmospheric conditions to any great extent.

As a rule, in the State, a general depression of temperature follows toward the last of August, which in ten years out of fifteen has culminated in a frost at the end of the month, or during the first week of September; if this is followed by continued lower temperature the epidemic of malarial fever ceases. If the temperature rises the fevers increase, and are not checked until the next cold wave, which comes during the third week of October. In this vicinity we had a slight frost during the last week of August, which put an end to our cases of intermittent, which did not again appear, as the temperature continued moderate. In the season of 1869 there was no frost in August or September, and our severe epidemic of typho-malarial fever continued until the last of October.

The inferences are that extreme hot and dry weather is healthful, but moisture added, engenders epidemics of malarial fever, which are checked by the appearance of frost. If with this intermittent type there is introduced a germ of typhoid, or a poison producing diarrhœa or

dysentery, we have a more virulent element added to the prevailing epidemic. That in the area of a State, or perhaps several, if the malarial influence springs up in a part, it affects all the adjacent territory.

In examining the reports from the countries where yellow fever prevailed this season, we find that June and July were unusually hot months, with rainfall, especially in July and August. Intermittent fever prevailed in a very severe form; yellow fever was brought from abroad and was added to the prevalent epidemic, just as in some seasons typhoid comes in with us to complicate or make our epidemic typho-malarial. At the south the heat and rainfall began early and made the country soon ready for the planting and growth of the terrible complication. The atmospheric conditions continued late, there being no frost or cold until November, to check its progress.

We had no yellow fever in this latitude, because it did not travel fast enough to reach us before the frost came to check the epidemic that made a ground on which to plant the disease. In 1855 I witnessed the advent of yellow fever into one of the cities of central Mississippi. The season for several months had been hot and dry; in August there was a heavy rain; many cases of intermittent fever followed; soon people came flying from New Orleans, and other infected districts, and the fever assumed a new and malignant type, which was soon pronounced yellow fever in earnest. This terminated with the first frost, which came the first week in October. There was the usual mortality while it continued.

It is probable that sanitary measures may prevent the introduction of a typhoid element into our epidemics, but wide areas of uncultivated lands, and even the cultivated fields, where such atmospheric conditions arise, yield the germs of malarial fever, that cannot be suppressed or avoided.

The commission appointed to investigate yellow fever reported, what was undoubtedly correct, that rigid quarantine would keep it out; sanitary measures would modify its virulence, and might also prevent the malignancy of the prevailing intermittent and the superinduction of typhoid or other kindred poisons. To make their report complete, the meteorological element should be taken into account, and sanitary means and prophylaxis should be used against the malarial epidemic, and this, with quarantine, might not only prevent the spread of yellow fever, but also greatly modify the usual summer sickness and mortality in those States.

Hospital Reports.

PENNSYLVANIA HOSPITAL.

CLINIC OF PROF. J. M. DA COSTA.

REPORTED BY FRANK WOODBURY, M.D.

Cases Illustrating the Principal Varieties of Bright's Disease. Differential Diagnosis, Complications, Pathology, and Treatment.

Gentlemen:—It happens that there have been, of late, an unusually large number of cases of renal disorder in the wards, some of which will fairly illustrate the characteristic features of the ordinary varieties of Bright's disease of the kidneys. I thought it well to have several of these patients brought before you this morning, in order to devote the hour to considering and contrasting their clinical features; and in conclusion, I hope to deduce some general principles that will serve to guide you hereafter in the treatment of these disorders, and aid you to a marked extent in warding off their evil consequences.

Acute Tubal Nephritis.

Here is the first case to which I will call your attention:—

Peter McA., born in Ireland, a waiter, 40 years of age; was admitted two months ago, suffering with ascites and general œdema, which had followed exposure to cold and wet about four weeks before. He had been previously well; in truth, he had always considered himself a healthy man; he is of temperate habits, and never contracted venereal disorder. He lost his parents early; one brother died of consumption. In the present illness the first symptom noticeable was swelling of the ankles, which was accompanied by loss of strength. Questioned upon this point, he says that he believes he did not pass as much urine as he had previously, and at times he noticed that it was dark colored. We have no evidence of his ever having had hematuria. Upon admission, it was found that he had difficulty in breathing, amounting at times to orthopnœa, and there was a small pleural effusion. The legs were very much swollen; the abdomen greatly enlarged; the face was pale and puffy. His urine was loaded with albumen, and contained an abundance of pale epithelial and hyaline casts, the daily excretion being only one pint and a half.

It is unnecessary that I should detail to you his progress, step by step, or dwell further upon the early history of the case. Suffice it to say that the fluid in the peritoneal cavity, the effusion in the chest, and the œdema of the legs, have all disappeared under treatment. It was a case, then, of general dropsy, following exposure to cold. So general was the dropsy that in addition to the ascites and œdema of the chest walls, there was an effusion in the left pleura, and the physical signs also indicated some excess of fluid in the pericardium. The heart was acting irregularly, losing a beat in every three or four; the apex impulse appeared in the sixth intercostal space; the first sound was muffled and replaced at the apex by a moderately harsh systolic murmur.

He was put upon a pill of squill and digitalis, which was shortly discontinued, and digitalis given alone, in the form of infusion, until, as you

see, the œdema gradually but completely passed away. There is no longer any effusion in the abdomen, no longer swelling of the general surface or of the extremities; no longer any amount of fluid in the pleura or pericardial sac. The urine I now show you. It is pale, nearly clear. Trying the nitric acid test—in the manner we generally resort to in this hospital, of dropping the fluid slowly down the side of the test tube upon the nitric acid; if any albumen be present, an opaque white ring is seen to cover the surface of the acid; this is the most delicate test with which I am acquainted—you observe the thin layer of coagulated albumen which is here, in small amount. We, therefore, say that our patient is still passing albumen with the urine, but only in a moderate quantity. Small tube casts are still found, containing epithelium, and only slightly, if at all, granular.

I will now complete the record by an examination of the lungs and the liver, which will enable you to compare his present condition with the notes you have already taken of his previous condition. As I stated that there had been some evidence of effusion in the pleura and pericardium, I will now investigate this question by percussion and auscultation, or physical examination.

As regards the heart, the first sound is distinct, not muffled, though it still occasionally intermits; just what I find, from the notes, has existed from the first, that is all. Concerning the lungs, the percussion note is resonant, anteriorly and posteriorly, on both sides. I find that there is a slight friction sound under the *right* scapula, not on the left; it may be from a former attack of pleurisy. There is no present effusion. The liver extends one inch below the border of the ribs, but no ascites remains. He now passes water freely, under the use of digitalis and belladonna, which he has been taking for some time.

Let us now proceed to inquire what is the pathology and prognosis of this case? and, secondly, what modification shall we make, if any, in the treatment?

I show him to you as one of the most typical cases of acute Bright's disease of the kidney that could be found, though now almost entirely recovered. When you look upon this case, you see a man who, though apparently in full health, had naturally not much power of resistance to disease; a weakness that we conclude was inherited, for a brother died with consumption, and his parents were not long-lived. We find such a system exposed to cold and wet. Following this the kidneys are disordered in their function, the legs swollen, general œdema appears, with effusion into the great cavities of the body; in short, we have an attack of Bright's disease following exposure; acute, desquamative, tubal nephritis; the same form of renal disorder that is observed to follow scarlet fever. However, in the latter case, you have not necessarily the same accident of exposure to cold; the morbid process in the kidney is part of the clinical history of the disease; here, on the contrary, you have heard a plain statement of a competent cause, in the exposure, followed by a general œdema, with thoracic and abdominal effusion. Indeed, you might make a correct diagnosis from a study of the dropsy alone, but the nature of the disorder is established by an examination of the urine. When first tested it was loaded with albumen—that is the expression, loaded with albumen—and full of tube casts, which were covered with epithelium. There is nothing said here in the notes about the existence of blood cells, which generally accompany the acute stage; perhaps they escaped observation; or had passed away by the time he came under observation.

By the treatment with digitalis and occasional purging, he has recovered. I shall not, just at present, discuss the principles of treatment, as I have a group of cases to show you, and think that you will better understand the theory after you have had an opportunity of contrasting this with the others, when the differences in the treatment will be pointed out and explained.

Shall any change be made in the present case? We shall stop the belladonna, and reduce the digitalis to ten minims of the tincture, three times daily. He shall also have twenty drops of the tincture of iron after meals. Improve the diet, and give him nourishing though plain food, with exercise when the weather is favorable, seeing that he is well protected by proper clothing. This, then, was a case of acute Bright's disease in the stage of convalescence.

Chronic Bright's Disease—Chronic Tubal Nephritis.

This patient's name is Edward C., occupying bed No. 17, of the men's medical ward. He is a salesman. His family history is not very good; his mother died of consumption; and a sister is subject to the same disease. After visiting a malarial region, he had chills and fever, and subsequently was accidentally salivated with mercury. After his return to Philadelphia he was occasionally troubled with constipation, but he had no trouble in urination, except that he had been accustomed for a long time to rise once or twice at night to empty the bladder. After exposure to bad weather, he had some dyspnœa, and nausea, and swelling of the ankles after walking, just as in the preceding case. In this condition he was admitted, a few days ago. His face was pale and waxy. The legs—if we may be permitted to use such a metaphor in speaking of these unwieldy supports—are immensely swollen. I could not present to you a better illustration of what we mean by œdema than you find in these ankles. The hands also have been swollen, and there was some puffiness around the eyes, but very much less than you would expect from the amount of swelling we observe below. As you notice, only a small degree of ascites exists.

What is the condition of the urine accompanying such a state of dropsy? He passes four and one-half pints in the twenty-four hours; therefore an increased amount of urine is discharged. I will proceed to examine the urine before you, as in the preceding case, with nitric acid. Here is the very distinct albuminous ring. The amount of albumen here, not only from this test, but from other examinations, we have found to be very decided. You see a very large, cloudy deposit above the clear nitric acid; a considerable amount, therefore, exists in the urine. Examin-

ation by the microscope reveals granular casts, as in the preceding case; some blood corpuscles are also present, and a few leucocytes or white corpuscles.

We will now examine other points in the case. The impulse of the heart is strong and extended; the percussion dullness is large, but not extraordinarily increased; the first sound is dull, but distinct, somewhat weighty. The vessels of the neck can be seen to throb, therefore there is some evidence of over action of the heart; we could almost say, from this examination alone, that there is beginning cardiac enlargement or hypertrophy, but without valvular disease.

The lungs are clear on percussion; there exists neither pulmonary œdema, nor pleural effusion. I have told you that the amount of ascites is very moderate.

Now, what is the matter with this patient? Here we have a case that fits in very well with the preceding. This, too, is a case of Bright's disease, for only in the kidney can we find the cause of such dropsy as we see here. As we discussed the points, it became evident that we have here a subject in which acute Bright's disease is passing into the chronic form, that of chronic tubal nephritis. Like the first patient, the symptoms here came on after exposure to cold and wet, in a person exposed to malaria and predisposed to consumption. But the symptoms are not those accompanying what we generally call a cold, but the chilling of the skin produced a congestion of the kidneys, which passed into a state of inflammation and denudation of the tubules by causing degeneration and exfoliation of the epithelium, the loss of albumen producing the amount of anæmia which is here present. From the granular character of the cells passed from the kidney we know that there is no longer such an acute affection as we saw in the former patient; yet I do not think that the kidneys have been sufficiently damaged to make us despair of restoring them to a comparatively healthy condition.

We give him—

℞. Tr. ferri chloridi, gtts.xxx.

well diluted, thrice daily, with a nourishing diet, beef tea, eggs and milk, the latter forming the greater part of his diet. He has not been placed upon digitalis; the urine being very copious, I have not thought it necessary to give him any diuretic. In addition to the treatment just laid down, I will order him a drachm of fluid extract of ergot, morning and evening, for reasons which I will give you hereafter.

Chronic Tubal Nephritis, with Uræmia—Treatment of the Complication.

Daniel G., 18 years of age, driver. Here is another interesting case of kidney disorder, which, two years ago, was under my care for this same affection. The notes are lengthy, so I shall not read them, as I am familiar with the general history and main points of the case. He improved very materially, I find, from ergot and the tincture of iron; very much the same treatment that we have just ordered for the previous patient. When he left us he had still some albuminuria, but as he had regained flesh and strength he was anxious to return to his work.

After his discharge he enjoyed good health until five weeks before admission. Then he noticed swelling of his ankles and abdomen, but kept at his work until the swelling and prostration led him back to the hospital. Upon admission, we found him suffering with general œdema. His urine had sp. gr. 1.015, and—please note this—contained a large amount of albumen, with granular epithelial casts. The daily amount of urine was about one pint. Under the treatment he has again improved; he passes more urine, but the casts persist, and the albumen continues in considerable quantity. This is a short statement of a history extending over six months; but I do not wish to detain him very long, as he is too sick. He feels drowsy this morning; he has headache, and has been vomiting. His pupils are large; they react to light, but they respond slowly. The temperature taken this morning was normal, but it shall be observed again during the day. His pulse is 72. You see how dull he is, how drowsy; his face is slightly flushed, from the vomiting, and yet he has what may be described as a clean tongue. He has been passing five pints of urine in the twenty-four hours, but he is not voiding as much to-day; we shall have it measured, to notice the deviation. His bowels are rather loose.

Now, what is this? If he had chronic tubal nephritis when he was under treatment two years ago, it is a case like the former, except that we have now acute symptoms grafted upon a chronic condition. But there are certain symptoms here that belong to a different form of renal disease. What does this headache, dullness, dilated pupils, vomiting and diarrhœa all mean? These are the symptoms of incipient uræmic poisoning. When you have a case of Bright's disease attacked with persistent vomiting, with a clean tongue, and the features just described, it should put you on your guard against blood poisoning, which is threatening and partly developed.

You may say, "I do not understand this. He is said to be passing five pints of urine, and I have been led by the books to believe that when the secretion is free there cannot be uræmic poisoning!" But my observation has been such as to teach me that this view is erroneous.

It is true, as a rule, that you will have scanty urine, but there are many exceptions, and here is one before you. How prove it? An accurate chemical examination will show that the amount of urea and other salts is very much diminished, while the water continues free and relatively increased. The irritation produced by these salts retained in the blood may occur while the quantity of the fluid is kept up. Whether the urea undergoes decomposition into ammonia, and in this way causes the blood change, or the urea itself causes these symptoms, is not for us to inquire into this morning; it is sufficient for us to know that they are present, and call for prompt treatment. He shall take—

℞. Acid benzoic, gr.xx
Syr. tolutani, ʒj. M.

To be given, largely diluted with water, every third hour.

He is to be freely purged; we will give him one drop of croton oil, made up in a pill, to be repeated if the first does not act freely. He shall also have a warm bath, or, if he is too weak, he shall take a vapor bath in bed, by means of hot bricks wrapped in damp towels. The steam will encourage the skin to act freely. We have thus endeavered to stimulate the emunctories, work the bowels by the oil and the skin by the vapor. Why give benzoic acid? Why select this in preference to any other acid (although almost any acid would not make a bad prescription), for counteracting the tendency to uræmic convulsions and coma? The benzoic acid prevents, particularly, the accumulation of the urinary salts in the blood; it is a diuretic in the sense that it influences the excretion of solid material. What did I tell you a few moments ago? That the secreting cells are clogged up while the water is given off. It not only purges the kidneys, excreting the solid constituents which are being retained, but it also, as an acid, prevents the decomposition of these substances which are accumulating in the blood and threatening life.

I am very sorry that I cannot have the time to finish my lecture this morning. As my time is almost up, I will merely show you another case and defer my concluding remarks until the next lecture.

Chronic Tubal Nephritis and Fatty Kidney—Retinitis Albuminurica.

Theodore J., twenty-six years old, inherits a tendency to kidney disease; his father has kidney trouble, and his mother has dropsy. He has had malaria, and has been in poor health for several years; indeed, at ten years of age he had swelling of the feet, lasting a month. He never had scarlet fever, but had typhoid two years ago, and has not felt well since. He has had several attacks of headache, dyspnœa and dropsy, and has not been able to work for six months, although not confined to bed. After an unusually severe attack he came into the wards. He was then weak, and his face was anæmic and puffy, especially about the eyes. His ankles were also swelled, but he had not so much dropsy as the other patients had. The urine had specific gravity 1.010, colorless, and contained less than one-quarter albumen, with hyaline and fatty casts. The quantity varied, after taking Basham's mixture for a few days it was increased to six pints.

As there was some impairment of sight, an examination was made, with the following result: "Eye-ground pale; border of disk indistinct in both eyes. Numerous, highly refractive, white spots on the retina, near the maculæ." He has the condition known as "albuminuric retinitis." This is all the more remarkable, because he does not complain very much of his eyes, and says his sight is pretty good.

The patient has had dropsy for several years; he shows albuminuric retinitis; his urine is passed in large quantity, but of low specific gravity, and containing albumen.

What is the matter here? He has the fatty kidney of chronic tubal nephritis, with commencing fatty degeneration. But these cases I will consider in my next lecture, when I will make some observations upon the different forms of disease commonly included under the specific title of Bright's disease of the kidneys.

(To be Continued.)

Editorial Department.

Periscope.

Action of Remedies on the Liver.

Dr. William Rutherford, of the University of Edinburgh, assisted by M. Vignal and Dr. William J. Dodds, has for some time past been examining, by scientific methods, the effects produced on the liver and the biliary secretion of the dog by a long series of drugs. The investigation has been assisted by a grant from the British Medical Association, and a lengthy and interesting report has been published in recent numbers of the British *Medical Journal*. The following short account is founded on the summary of results published in No. 945. The authors state carefully that "all the conclusions are based on experiments performed on the dog, and have no reference to any observations made on the human subject." But in the few cases in which the results thus obtained have been relied on in suggesting experiments on men, the results seem to be trustworthy, and much light is thrown on the comparative action of remedies. It is impossible to avoid much disagreeable repetition in reports of this kind, but attempts have been made, by classification, to reduce this as much as possible.

Calomel stimulates the intestinal glands, but not the liver. Mercuric chloride is a powerful hepatic stimulant, and has only a feeble action on the intestinal secretion. When administered together the liver and intestinal glands are both excited.

Castor oil does not stimulate the liver, and croton oil does so but slightly. Both excite the intestinal glands.

Jalap is a powerful hepatic and intestinal stimulant; scammony very feebly excites the liver; gamboge stimulates the intestinal glands only.

Colocynth and ipecacuanha both largely increase the secretion of bile. Ipecacuanha slightly augments the secretion of intestinal mucus, while colocynth powerfully excites the intestinal glands.

Taraxacum and senna are both feeble hepatic stimulants. Rhubarb increases the secretion of bile—certainly, though not largely; aloes is a powerful stimulant of the liver.

Podophyllin is "a very powerful stimulant of

the liver," the bile secreted under its action retaining its normal percentage of solids. If the dose be too large, the secretion of bile is not increased. It is also a powerful intestinal irritant. Euonymin, sanguinarin, and iridin are all powerful hepatic stimulants, and they also increase the intestinal secretion, but not so violently as podophyllin. Leptandrin, baptisin, phytolaccin, hydrastin, and juglandin have similar but milder effects. Menispermin slightly stimulates the intestinal glands, but not the liver.

Magnesium sulphate and manganese sulphate stimulate the intestines, but not the liver; sodium sulphate has a considerable effect on the liver, and a lesser one on the intestinal glands; potassium sulphate is a hepatic and intestinal stimulant of considerable power, though its effect on the liver is uncertain, owing, probably, to its sparing solubility.

Sodium phosphate is a powerful hepatic and moderately powerful intestinal stimulant; ammonium phosphate is a moderately powerful stimulant of the liver, but does not excite the intestinal glands; Rochelle salt is a feeble hepatic, but a powerful intestinal stimulant.

Dilute nitro-hydrochloric acid is a hepatic stimulant of considerable power; sodium chloride is a feeble stimulant of the liver; ammonium chloride excites the intestinal glands, but not the liver. Potassium iodide has no notable effect on the biliary secretion.

Calabar bean, in moderate doses, stimulates the liver; atropine sulphate antagonizes its effect, but when given alone does not actually affect the secretion of bile. Morphia does not appreciably affect the hepatic secretion, and does not interfere with the stimulation produced by such a substance as sodium salicylate. Hyoscyamus resembles morphia in these respects. Pure, diluted alcohol does not affect the biliary secretion, and jaborandi is a very feeble hepatic stimulant.

Lead acetate, in large doses, diminishes the secretion of bile, probably by direct action on the liver. Tannic acid does not affect the biliary secretion.

On the Suture of Nerves.

A Russian surgeon, Dr. Bakowiecki, states, in a monograph quoted in the London *Medical Record*, that the suture of nerves considerably hastens their cicatrization, and the re-establishment of their functions; that it is necessary to unite the cut nerves within twenty-four hours of their section, and to perform the operation in such a way as to prevent the ligature from passing through any structure except the neurilemma; and that sutures of catgut must be alone employed, as they do not cause suppuration, while they are wholly absorbed in the wound. Suture prevents the appearance of tetanus. Eulenberg and Landois obtained negative results because they passed the ligature through the whole thickness of the nerve. The experiments of Dr. Bakowiecki were made upon various animals; they were one hundred in number; the nerves sewn were the sciatic, vagus, and hypoglossal. The sutures employed were of silk, silver, and catgut prepared by Lister's method. The microscopical appearances seen were in the negative cases, in which no regeneration of the nerves took place, destruction of the axis cylinders. In the positive cases, in which there was regeneration of the nerve fibres, a bud made its appearance at the end of the axis cylinder of the nerve. After a lapse of thirty days filaments (axis cylinders) were seen, which appeared to consist of fusiform cells communicating with each other by their prolongations. Around the filaments a pale contour line could be distinguished; this line the author believes to be the medullary sheath. The filaments themselves join directly the original nerve fibres of the central end of the cut nerve. The author supposes that new nerves are thus formed, and he bases his supposition upon three facts. In the first place, the filaments just described pass directly into the nervous fibres. Secondly, the portion of regenerated nerve is composed of these fibres. The nerve, when so formed, is found to have recovered its functional properties. Lastly, the filaments are strongly stained by carmine, and they act in the presence of certain chemical reagents in exactly the same way as do the true axis cylinders. The pale contour line is supposed to be the medullary substance of the nerve, and not the neurilemma or sheath of Schwann, because no nuclei have been found in it.

Peculiarities of the Third Stage in Placenta Prævia Labors.

Professor A. R. Simpson says, in the Edinburgh *Medical Journal*, I may be allowed, in passing, to make some observations on the peculiarities in the third stage of labors complicated with placenta prævia. These observations hold good to placenta prævia cases general, as well as to primiparal placenta prævia cases, although I am led to make them from the circumstance that in both our cases it was found necessary to extract the placenta artificially.

1. *Common Necessity for Shortening the Third Stage.*—To begin with, we can rarely afford to allow any lengthened interval to elapse in such cases between the birth of the child and the complete evacuation of the uterus. The loss of blood which the patient has sustained during the first stage of the labor may have proceeded just so far that she could survive it, but a slight additional drain would prove fatal. Unless the uterus be contracting with even more than usual vigor, it is likely that there will take place additional loss of blood, owing to the partial detachment of the placenta that has been produced. In ordinary cases, where the patient has lost no blood previously, and where the placenta lies high and perhaps either unseparated or else completely separated in the uterine cavity, we may wait for half an hour or more, without seeing any hemorrhage to call for interference. But where the patient is already largely drained, and some degree of hemorrhage is necessarily progressing, as takes place so commonly in placenta prævia cases, the indication for artificial shortening of the third stage becomes very urgent.

2. *Inertia of the Uterus.*—Again, even if delay were safe, it would, in these cases, require to be unusually prolonged. For, *first*, the placenta, or what remains of it still adherent to the uterine walls, is attached low down in the cavity, where

the muscular walls are thinnest and weakest, and where but a limited set of the muscular bundles can come to bear on it for its detachment and extrusion. And, *secondly*, the rapid withdrawal from the uterus of the main mass of its contents leaves it with a tendency to inertia, which can only be overcome by active pressure and the use of ergot. The muscular conditions of the uterus thus form a second indication for interference in the third stage.

3. *Adhesion of the Placenta.*—There is another difficulty, which we may be prepared to meet in such cases. The placenta is so firmly adherent to the uterine walls, in consequence of inflammatory changes in the maternal portions of it, that its separation requires extreme care and causes some difficulty. It is just such an adhesion as may require similar interference after an otherwise normal labor. Only, here the inflammatory changes in the uterus, to which in this case the prævial complication is due, assert their mischievous influence further by leading to this firm adhesion between the uterus and the badly-placed placenta. Such a double evil result is easily intelligible.

Dilatation of the Os for Sterility.

Can the dilatation of the contracted os uteri by sponge-tent facilitate impregnation? is the subject of an inquiry by Dr. Haussman, in the *Archiv für Geburtshulfe*. After a short historical *résumé* of the introduction of sponge-tents into gynæcological practice in general, and for the cure of sterility in particular, the author explains the injurious changes in the cervical mucous membrane, and in the character of the secretions from it, which the sponge-tent, and, even though in a lesser degree, the tangle-tent, effects, and formulates his results in the following propositions:—When I summarize, therefore, my observations, the attempt to facilitate impregnation by dilatation with sponge-tents, in cases of contraction of the os uteri or of the cervix, is found unavailing. 1. On account of the increase of the traumatism associated with the coitus, which is exerted upon the uterus; or, 2. On account of the peeling off of the epithelium of the mucous membrane, which, at all events, is not without importance for the movement of the spermatozoa; or, 3. On account of the alterations in secretion from the mucous membrane, which is destructive of the movement of the spermatozoa; or, lastly, on account of the equally destructive action of the carbolic acid, or other similarly acting solution, employed for purposes of disinfection. In consequence of these experiments, the conviction has long since forced itself upon me, that if we do not succeed in retaining the dilatation obtained by the sponge-tent patent, until the injurious influence of the traumatism conditioned by it has disappeared, and until, furthermore, the mucous membrane of the uterus, with its secretion, has returned to the normal state, which, possibly, in each of the above-mentioned favorable cases, occurred, or unless other dilating cones be discovered free from these defects, there at present exists no prospect of turning this method of artificial dilatation of the os uteri or its neck to account in facilitating a conception.

Cases of Dyspareunia.

In the *American Practitioner*, Dr. A. F. Kinne gives several cases of this difficulty, two of the most striking of which we quote:—

In the winter of 1872 Mr. C. came to my office for advice in behalf of his second wife, whom he had recently married and with whom he had found it impossible to have sexual relations. Upon a careful examination of this case, under chloroform, no cause for the dyspareunia could be discovered. It seemed to be purely a neurosis; and relief was obtained by inserting the thumbs, back to back, and making forcible dilatation. I might have tried iodoform, or some other local application, in this case, but chloroform being necessary for a thorough physical examination of the case, the course which I took was probably the best.

The experience of this gentleman in his marital relations would seem to have been exceptionally trying. He stated that he had lived nine years with a former wife, without ever having accomplished the sexual act. And it would seem that a sensitive caruncle must have existed in the case of this wife, for at times she complained of great pain in urination and so forth. But the most remarkable point in this case was, that he had consulted a number of physicians, at different times during this long period, without obtaining any relief or satisfaction—a state of things which will be found to exist, I think, in connection with a very great proportion of these cases. Indeed, but for this circumstance I should hardly deem my own experience worth reporting. Vaginismus and dyspareunia are comparatively recent terms, and the time is within the memory of many of us when nothing used to be said about the condition which they describe.

Milk Feeding to Infants.

Professor Dill, at a late meeting of the Ulster Medical Society (reported in the Dublin *Medical Journal*), states that some members of the profession had taken in hand to weigh a child before and after taking the breast milk, and found that from three to four ounces were taken at a time, amounting in all to about two pounds a day. Another important matter to be attended to is the temperature of the milk; it should have a mean temperature of 95° Fahrenheit. He considered this point quite as important as either quantity or quality, and thought that much injury arose from want of attention to it. He thought that if we could get over our prejudices, ass's milk would probably be the best, as it comes nearer the mother's, but as society is constituted, we need not go beyond the cow's milk; but with all the care and attention which can be bestowed, it is a poor substitute for the soothing influence of a mother's lap and a mother's bosom; and no man of any experience could recommend bottle-feeding as compared with the breast. In consulting physiological chemists we find that the mother's milk varies much from first to last, becoming stronger as the child grows older, and is adapted to the child's strength up to that period when the child should be weaned. We should take a leaf from nature's book, and diminish dilution as the child advances. He would not dilute with barley water, as some advocated, but use simply pure

water. Cow's milk requires a little alkali—depending on the state of the bowels; if loose, chalk or lime water; if constipated, a little magnesia.

Rules for the Prevention of Self Abuse.

Mr. J. Burns, of London, has recently written a well-intentioned pamphlet, entitled "The Science of Life." The evil sought to be remedied is the habit of masturbation among the young. The remedy suggested is, that parents should enlighten the minds of their sons as to the true uses of their reproductive organs, and the evils resulting from self abuse. It is a difficult subject, but, says a reviewer in the Edinburgh *Medical Journal*, we can conceive no possible harm resulting to boys from a little *wholesome* knowledge on these matters, when they are certain, too soon, to get plenty of *unwholesome* knowledge of a similar kind from their school companions. The following rules are given as aids to the abandonment of bad habits, and to the stoppage of involuntary emissions:—

1. "Perfect cleanliness of the genital organs; if possible, a cold bath every morning." With reference to this rule, we are of opinion that circumcision would aid in lessening masturbation by ensuring cleanliness.
2. "Abundant, but not exhausting, exercise of the arms and shoulders, quite as much as of the lower limbs, since if these latter are exclusively exercised too much blood is directed to the generative organs.
3. "Strict moderation in eating and drinking; avoidance, as far as possible, of late suppers, rich, greasy, or highly-seasoned dishes, and of meat and eggs, except in small quantities.
4. "Abstinence from tea, coffee, and alcohol in every form."

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"The Treatment of Ringworm in Public Institutions," is the title of a paper by Dr. J. V. Shoemaker, of this city, reprinted from the *Transactions* of the American Medical Association. The author especially recommends the treatment by puncture with the needle-knife.

——The Mahoning County, Ohio, Medical Association has commenced the publication, in pamphlet form, of its *Transactions*. The first number contains fourteen small pages. It would have been better, we should think, to send a carefully written copy of the Transactions, properly condensed, to some established medical journal for publication.

——The theory of maternal impressions, or mother's marks, is attacked by Dr. Roswell Park, of Chicago, in a reprint from the *Southern Clinic*. He writes: "I contend that while we are hardly prepared to deny explicitly and *in toto* that a mother's mental condition, be it temporary or more or less permanent, may in some obscure and inexplicable way modify the normal development of the fœtus in utero, still we are certainly not yet in a position, either, in the first place, to even admit that such an influence can make itself felt; or, secondly, and supposing this possible, to pretend in this way to explain the palpable abnormality.

BOOK NOTICES.

Chemistry; General, Medical and Pharmaceutical. Including the Chemistry of the U. S. Pharmacopeia. By John Attfield, M.D., etc. Eighth edition. Revised by the author. Phila., H. C. Lea, 1879. 8vo, pp. 697.

The popularity which this book has enjoyed is owing to the original and clear disposition of the facts of the science, the accuracy of the details, and the omission of much which freights many treatises heavily without bringing corresponding instruction to the reader. Dr. Attfield writes for students, and primarily for medical students; he always has an eye to the Pharmacopœia and its official preparations; and he is constantly putting the matter in the text so that it responds to the questions with which each section is provided. Thus the student learns easily, and can always refresh and test his knowledge.

So much for the plan of the work; of the matter and substance we need not speak. The author has subjected it to a careful revision, and adds the novelties in chemistry which the last few years have brought forth. The modern notation and terminology are introduced and explained; and illustrations are added in sufficient numbers to elucidate the manipulations. Numerous tables and a long index complete the volume; but as nothing is perfect, so this index is not; we turned to it to find out something about carbonic oxide, but the two references given are quite blind and unsatisfying.

Fasting Girls, their Physiology and Pathology. By William A. Hammond, M.D., etc. New York, G. P. Putnam's Sons, 1879. 8vo. pp. 76.

A timely, pointed and powerful protest is here entered by the eminent neurologist against one of the absurd popular superstitions of the day. The work was suggested by the Mollie Fancher case, the fasting girl of Brooklyn, who induced even cautious medical men to sustain her claim of prolonged and impossible abstinence from food. All who want enlightenment on this subject will do well to peruse this clear refutation of such deceptions.

THE

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D. G. BRINTON, M.D., EDITOR.

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QUARANTINE AND THE PLAGUE.

In view of the possible approach of the plague, the question of quarantine comes to the front as one of prime importance. An influential and able class of sanitary writers have thrown the weight of their names against restrictive quarantine. Of these, we mention Dr. AUGUST HIRSCH, in Germany, Mr. NETTEN RADCLIFFE, in England, and Dr. HENRY HARTSHORNE, in this country, as typical examples. All these writers have exerted themselves to point out the futility, as shown by experience, of the traditional measures of quarantine for the arrest and repression of plague, and urged that the attention of Governments should be concentrated on the strengthening and extension of such measures of internal local sanitary administration as had proved most efficacious in the control of infectious maladies. On their side they have such eminent backers as PETTENKOFER, SIR WILLIAM JENNER, and a host of distinguished names. All these declare quarantine, sanitary cordons, blockading suspected places, and confining and isolating suspected persons and places, as folly and needless cruelty.

We are not disposed to underrate the weight which should be allowed to such opinions; nor can the neglect of the best sanitary measures be excused or passed over by the establishment of cordons; nor should the needless cruelties of the old quarantine regulation be repeated; but for all that a restriction of intercourse between the sick and the well, and a segregation of cases, are wise measures and should be observed.

Let it be remembered that it was against this very disease, the plague, that European governments first devised the system of quarantine. It was not against cholera or yellow fever, but against this far more terrible scourge, that this onerous and unscientific system was devised. For a century and a half it has not visited western Europe; and when it last did so, it seems to have been restricted and kept within narrow limits by a sanitary cordon of unsurpassed rigidity (Marseilles, 1722).

The law of distribution of the plague seems different from that of cholera. It seems contagious, in the strict sense of the word; and its mortality is far in excess of that of cholera. HECKER calculates that in the Fourteenth century Europe lost by the black death, as the plague was then called, no less than 25,000,000 of its inhabitants. This may have been an exaggerated estimate, but judging from the more reliable records of recent times, he was probably not far wrong. During that same period the mortality in Florence was 60,000, and in Venice, 100,000; while Marseilles lost in one month 16,000 of her inhabitants. During the great plague of London in 1664, 68,596 of the population were carried off, as many as 8000 dying in one September week.

No wonder, therefore, that the panic in Russia has been almost incredible. Persons belonging to every class and station in life have petioned for an entire cessation of all intercourse, even of postal communication, between the rest of Russia and the Volga. Letters which were sent from Astrachan and Zaritzin were not received by the persons to whom they were ad-

dressed. Some people even refused to take paper money, fearing that the germ of the infection might be communicated to them through it. In short, it is almost impossible to describe the terror which took possession of the people, who looked upon this disaster as a punishment from God.

The Governments of Germany and Austria took early measures to restrict intercourse; and their action was prudent; undoubtedly, even if such measures do not check the pestilence, they will stay for a time its course, and allow the completion of sanitary precautions. Should the epidemic advance to Western Europe, we hope our Government will not be led by theorists to neglect enlightened but firm and restrictive quarantine regulations.

The success which seems to have attended the establishment of the sanitary cordon around Wetlyanka is reassuring, and apparently vindicates the expediency of such measures. But sinister reports are published in the German and English papers, that there are other foci of infection in European Turkey which have been sedulously concealed by the authorities, and others again are suspected, which are denied by the sufferers, for fear of a similar fate to that of the Astrachan villages. If these rumors are true, we need not be surprised to hear any day that the pest is slowly creeping westward, and may devastate some of the large cities of Europe, as it did Moscow and Marseilles in the last century.

Notes and Comments.

Therapeutical Notes.

QUININE LOCALLY IN PANNUS.

In an Italian ophthalmological journal, M. Ruvioli records two observations of severe pannus consequent on granular conjunctivitis, which were cured by this means when the habitual remedies had been tried without effect. However, bisulphate of quinine would be of no use when the pannus was accompanied by erethism of the ciliary nerves, or when it is of strumous origin.

CURE OF CORNS.

The method recommended by M. Guibout is to soften the corn by applying to it, for one night, an ointment consisting of turpentine and acetate of copper, each one part; white resin two parts, and yellow wax four parts. The corn should then be excised with scissors, care being taken to go deep enough to remove its summit. After excision the matrix should be cauterized with sulphuric acid, else the corn will be reproduced.

NEW REMEDY IN DYSENTERY.

The latest remedy in dysentery is an East India plant, the *Ixora Dandxuca*. The drug is very efficacious in dysentery, most so, as in the case with ipecacuanha, when the cases treated by it are seen early. It possesses the advantage of not creating nausea, while it has an aromatic and agreeable taste. It has also been given in fifteen to thirty grain doses three or four times a day, and may be administered with confidence to patients of all ages.

SALICYLATE OF SODA IN CHOREA.

In a case of chorea, in a child of seven, Dr. S. Weir Mitchell gave the following prescription for more than a month, and apparently with decided advantage, each dose containing—

℞.	Sodii salicylat.,	gr.x	.67 Gm.
	Glycerinæ,	ʒj	4
	Spts. lavendulæ,	♏v	.33
	Ol. gaultheriæ,	gtt.½	.01
	Aquæ, q.s. ad.	ʒss q.s. ad. 16	

Given three times a day.

He has been experimenting in this case and in a number of others, concerning the effects of salicylate of soda in chorea, and it looks as if the experiment would prove to be of some value.

CHAPPED HANDS.

A useful mixture, used by Dr. M. A. Wilson, of New York, is—

℞.	Acidi carbolici,	gr.xv
	Vitellum ovi,	No.j
	Glycerinæ	f.ʒ iij.

Smear a small portion on the hands several times daily.

Milk Diet in Dysentery.

At the conclusion of an article on the more severe forms of dysentery, in the *Archiv für Heilkunde*, March, 1879, Dr. Wernich strongly recommends an absolute milk diet, continued well into convalescence, as by far the best plan of nourishment. At first some lime water may be added to the milk. This diet, with opium and belladonna, especially in suppository, to reduce the tenesmus, the avoidance of astringents, and occasionally the use of ipecac, are all that is required.

Consciousness as a Mental Factor.

In an article in the *Nineteenth Century*, Mr. Francis Galton says:—

"The more I have examined the workings of my own mind, the less respect I feel for the part played by consciousness. I begin, with others, to doubt its use altogether as a helpful supervisor, and to think that my best brain work is wholly independent of it. . . . Its position appears to be that of a helpless spectator of but a minute fraction of a huge amount of automatic brain work."

A peculiar condition of the mind in relation to consciousness, is that exhibited by somnambulists. Dr. W. Munro remarks on this, in the Edinburgh *Medical Journal*—

"As many people are once or twice in their lives somnambulists, and no bad after affects are ever observed in them, it can hardly be said that somnambulism is always the effect of brain disease. There only appears to be some peculiar temporary vaso-motor disturbance, causing, as Anstie has pointed out there is, deeper unconsciousness than in ordinary sleep, while the power of coördinating movements remains. But that all responsibility for such acts as are done in such state is abrogated, must be at once admitted, when the astuteness with which somnambulists will succeed in overcoming precautions for their own safety, taken by others with their own waking consent (Anstie), is considered."

Comparative Anatomy of the Olfactory Apparatus.

In connection with the editorial on the Sense of Smell, in the REPORTER, p. 302, we quote the following from a paper read before the Royal Society, by Dr. A. M. Marshall, recently:—

He declares that "The olfactory organ is a visceral cleft; the olfactory nerve is the segmental nerve supplying the cleft in a manner precisely similar to that in which the hinder clefts are supplied by their respective nerves; and that the Schneiderian folds are gills." These conclusions are adequately supported by explanatory details of observations conducted on a long series of vertebrate embryos, and we may reasonably accept the proposition that "as there are no nerves or clefts in front of the olfactory segment, the olfactory nerve must be taken as the most anterior nerve, and the nose as the most anterior (visceral) cleft." The study of homologies is in itself so fascinating, and being so, calculated to lead the observer to formulate extravagant hypotheses, founded on his observations, that there is, rightly, a certain unwillingness to accept new explanations always apparent. But these results of Dr. Marshall's work derive such material support from the carefully arranged anatomical and developmental details, that they may be safely accepted as the rational explanation of that they seek to make clear. The paper is an important contribution to anatomical literature.

Is Insanity Increasing?

This is the title of a paper by Dr. Mortimer Granville, in the *Nineteenth Century*. He answers the question in the negative. It is true that the number of insane persons in each succeeding decade is greater. This is partly due to an actual increase in the population, but it is chiefly owing to the circumstance that the admissions of insane persons into asylums are more numerous than the discharges by death or recovery. The outlet being less than the inlet, there is progressive accumulation. Another minor though not unimportant cause of the alleged increase of insanity is said to be the crowding of asylums with imbecile paupers and troublesome old people, of both sexes and all grades.

Syphilis d'Emblée.

This is the name applied by French syphilographers to those cases of general secondary syphilis which have not been preceded by any primary sore—absorption without local infection. Dr. Weinberg, of Vienna, in a paper before the Doctoren-Collegium of that city, recently cited two cases, but concluded with the assertion that all such instances are deceptive, and that the absence of the primary sore is only apparent. In all cases he maintains there is and must be one, although, especially in women, the patient may be ignorant of its existence. Direct absorption of the virus, without cutaneous lesion, he rejects.

Action of Beverages Charged with Carbonic Acid Gas.

These beverages are so popular, that the following observations, given by Dr. Quincke, in the *Archiv für Pathol. und Pharm.*, are interesting:—

Beverages charged with carbonic acid gas are diuretic.

Their diuretic effect is owing to a superabundance of water in the blood, due to the more rapid absorption of these beverages.

They have little effect on the blood pressure and pulse, but by reflex action the respiration becomes slower and deeper.

Studies on the Physiology of Conception.

Some interesting observations on this subject were communicated last year to the Berlin Medical Society, by Dr. L. Löwe. He has discovered that a single spermatozoon is sufficient to impregnate an ovum; indeed, that in nearly every case only one gains admittance, and that as soon as this one penetrates the walls, an immediate deposit, something in the nature of a chemical precipitate, takes place on the walls of the ovum, which prevents any further access of spermatozoa. Occasionally, however, two spermatozoa do gain admittance, either owing to their penetration being simultaneous or the animal being in ill health. When this is the case, the result is a double monster, or a malformation of some kind. The transparent eggs of certain fish are best suited to exhibit these processes.

A New, Tasteless Purgative.

Le Progres Médical states that Dr. Rabuteau has recently made some researches in regard to the physiological action of a new saline purgative, sodium sulpho-methylate, or methyl-sulphate. This is a colorless salt, crystallizing with difficulty, but destitute of any disagreeable flavor. M. Rabuteau first injected ten grammes, or about two and a half drachms, of the salt, dissolved in ten times its weight of water, into the veins of a dog, and found that no diarrhœa was produced. Subsequently he administered fifteen grammes, about half an ounce, of this salt, dissolved in two wineglassfuls of water, to a patient under the charge of M. Quinquaud, in the Hôtel Dieu. The effect was that it caused free evacuation of the bowels.

Hypodermic Medication.

The hypodermic syringe, to him who knows how to use it, is an invaluable companion. It is indifferent whether the patient can swallow or not; the agents are the simplest; a sufficient medicine chest can be carried in the vest pocket; there is no nauseous dosing, and the effects are prompt and certain. Would we relieve pain, we inject morphia; would we produce vomiting, apomorphia or emetina; would we lessen fever, quinia; would we excite the cutaneous and salivary secretions, pilocarpin; would we check hemorrhage, ergotin; would we evacuate the bowels, aloin; would we check night sweats, atropia; would we relieve paralysis, strychnine; would we cure syphilis, mercurials, etc. Surely the advantages of this method are immense.

Dangers of Chlorate of Potash.

This remedy, so extensively used by the public as a domestic medicine, is a poison, and should be labeled as such. In the *Med. Central Zeitung*, Feb. 5, Dr. Schultze relates a case of a three-and-a-half-year-old boy, who had a slight diphtheritic attack. The parents gave him freely of a saturated solution of the chlorate for a gargle; as was natural, the child swallowed most of it. The amount thus used was one ounce in six days. Nausea, vomiting, diarrhœa, cyanosis, and sleepiness advancing to coma, supervened, and the child died. Evidently these symptoms arose from the drug. Various similar cases have been reported, and they should serve as warnings against the careless use of a potent drug.

Epidemic Influenza.

Dr. Edgar Bolles, of Pennington Point, Ill., writes: We have had an epidemic of influenza that has been quite troublesome, affecting the old and young of McDonough and adjoining counties. Also quite a wave of pneumonia has passed over the same region, mostly of the catarrhal variety, and more than commonly fatal.

Correspondence.

Veratrum Viride.

Ed. Med. and Surg. Reporter:—

In giving veratrum, it has been my habit to begin with three drops Norwood's tincture, and repeat in four hours, increasing by one drop every third dose, until the pulse was softened and brought down to seventy or seventy-five beats per minute.

I have never yet met with a case in which it was necessary to exceed eight drops to attain the desired end. And in such cases the specific effect of the drug, nausea and vomiting, with great prostration, was a most disagreeable, if not dangerous, complication. In my own case, and I think I have quite a degree of toleration, seven drops, repeated in four hours, will quickly reduce the pulse from one hundred to sixty beats per minute.

I now recall a case in which about twenty drops were given by mistake, followed by most severe vomiting and alarming prostration. When these larger doses are found necessary, I often notice a rapid falling of the pulse from one hundred or over to fifty-five or fifty, the patient, at the same time, complaining greatly of a distressed or "gone" sensation.

A patient of mine, only a few weeks since, was violently vomited and greatly prostrated by taking six drops of the tincture, when it had been gradually increased to that quantity from four drops. The testimony the doctor has brought forward would certainly seem sufficient to satisfy the most skeptical that these heroic

doses may be, and are, given without destruction to life. But is it the soundest practice, in ordinary cases, where life is not in imminent peril, to use these most potent remedies in such doses as must, in nearly every instance, threaten the safety of the patient, and in some produce fatal consequences—in *which* we cannot know till we have tried—merely to abort or cut short a disease, while their power to do so is still a matter of grave doubt? As in a most alarming case of croup or diphtheria the physician should not hesitate to perform tracheotomy, so should he not doubt the propriety of employing *ten* drops of the tincture of veratrum viride in puerperal fever which has resisted more conservative doses. The one, at the outset, would, I think, be as unwarrantable as the other. In either case he adopts the safest alternative. My experience with this remedy has not been among the enfeebled poor of our large cities, nor the enervated votaries of fashion and luxury, but largely in the country, and among those who earn their bread by the sweat of their brow. Not among the asthenic, but the sthenic.

I think it should be a matter of careful study and experiment with us, as physicians, to ascertain, as nearly as may be, the smallest possible dose of a given remedy that will be required to meet the indications in a given case. Of the three conditions, no medicine, too little medicine, or too much medicine, if I were the sick man, I would accept the first. Either would quite likely not give the patient his best chance, and this would diminish from first to third. I find that I cannot, with safety to my patients, use very many medicines in doses as laid down in books and medical journals; whether due to idiosyncrasy, climate, or type of disease, I cannot say. I do not have cases that will tolerate for weeks and months thirty, forty or fifty grains potass. iod. three times a day, nor do I often find use for more than ten or fifteen grains of chloral hydrate at one dose, when that remedy is indicated. This list might be extended almost indefinitely, but let mention of these two suffice. In my criticism of this prescription I can assure the Doctor that it is most kindly meant, and is by no means intended to give encouragement to that class of physicians whose "stock in trade" consists largely in attempts to build themselves up by casting slurs upon the practice or character of brother practitioners.

I simply state here what has been my experience with this drug, and if it does not harmonize with that of some other physicians, well. We shall have no battle about it, but by comparing notes will be able to prescribe with greater definiteness, and contribute our mite toward placing medicine among the more exact sciences.

Youngstown, N. Y. F. J. Baker, M.D.

Ed. Med. and Surg. Reporter:—

I wish to give Dr. Fowler my experience with Norwood's veratrum viride. Dr. Kemper, of Va., gave to a young, delicate lady, aged 16, eight drops of the veratrum every four hours, in syrup of squills. The third day of her disease, pneumonia, he was unable to visit the patient, and I was called, and prescribed the veratrum in the same dose and at the same interval. I also ordered the nurse to continue Dr. K.'s treatment, not knowing the syrup of squills contained veratrum, and thought he was giving it only as an expectorant. The nurse continued to give the double dose until the patient had taken fifteen doses, making a total of 336 drops in 108 hours, or 27 doses in all. When Dr. K. and myself saw the patient together, we found the double dose had brought down the pulse from 136 to 55, and our patient made a rapid recovery. I often prescribe the veratrum, and I have always found it to be the only remedy we can rely on to control the muscular power of the heart with any certainty. An over dose will produce nausea and vomiting, so that we are compelled to use some pleasant adjunct, especially when there is gastric disturbance.

Elgin, Texas. G. K. Young, M.D.

Flexible Metallic Bougie.

Ed. Med. and Surg. Reporter:—

This instrument is made of small silver wire, coiled exactly like the flexible arm of a dental engine, with a solid silver tip where the wires are secured. I have found this to be the best instrument for the purpose of passing through strictures that I have ever used. It has all the good qualities of the French gum catheter and bougie, with the additional advantage of being more firm and holding all the ground as fast as gained, or in other words, it stays in the urethra just where it is left, and is not forced out by the spasmodic action of the muscles of the penis. It is just as flexible as a gum catheter, and will follow the most tortuous canal with much greater ease. In introducing it, the operator should give it a twisting motion with his fingers, the same as in the introduction of the French gum elastic catheter, than which it is much easier to introduce, because of the screw arrangement of the silver wires composing it. Besides its use as a bougie, I have found it quite convenient for attaching the galvanic apparatus described in the Reporter, vol. xxxix, p. 175; it makes a much stronger electrode than a catheter, because each wire in its composition carries a separate current. Any surgical instrument maker can manufacture it.

Greenville, Mich. O. E. Herrick, M.D.

Small Doses—Action of Quinine, etc.

Ed. Med. and Surg. Reporter:—

The publication of my paper on small doses, which appeared in your issue of September 7th, 1878, has elicited many evidences of approval on the part of the profession. I received a few days ago the subjoined letter from my friend, Dr. Ward, of Baltimore county, a member of the Maryland State Board of Health, and a most popular practitioner of medicine for a period of fifty years:—

Dear Doctor:—I have read, in the *Scientific American*, with much pleasure, your article on the effects of medicine in small doses. I was gratified to learn that I was not the only old fogy left. My experience confirms your views. The tongue indicating an abnormal state of the secretions, I have found calomel the agent to be relied on. When using the lancet freely, I then

gave a large dose of calomel, for its depressing power. I am persuaded that many lives would be saved if the system were influenced by it to a gentle tenderness of the gums.

The action of quinine is certainly not well understood. Will not, or may not, a large dose of quinine change or modify the abnormal action of the nerve centres, and small and repeated doses sustain the new action? Does not disease primarily act on the nerve centres, or rather the cause of disease?

I have used tartar emetic for many years in the way you do. I have found it the most useful remedy in mammary inflammation; in what are termed bad colds; also after parturition, with heated skin, restlessness, and a feeling of malaise. In these cases an intestinal irritant might and often has placed the patient in great danger. A solution of tartar emetic, one grain to eight ounces of water, acts beautifully. Dose one tablespoonful every hour. Excuse an old fogy.

J. Robert Ward, M.D.

Dr. Ward's theory in regard to the action of quinine is both novel and suggestive. An interesting paper by Dr. Bramblett, of Newburn, Va., appears in the *Transactions* of 1878, of the Medical Society of Virginia, in which the danger of the administration of large doses of sulphate of quinia and sulphate of cinchonidia is depicted with much force. John Morris, M.D.

Baltimore, Md.

On Purpura or Land Scurvy.

Ed. Med. and Surg. Reporter:—

Last fall I treated a case of what I called "purpura;" age 16; had been having chills; petechiæ all over the body, especially the legs and thighs, from small round puncta the size of a split pea, to purple blotches as large as a silver quarter. Had bad food, bad air, etc.

Case No. 2, of same description in appearance of eruption, but a girl of about 8 years old, with good food, clean surroundings, and no chills; but stiffness of limbs, with little or no pain.

Case No. 3 was treated a year ago last fall. A young man, aged 21, with the best hygienic surroundings. No disease except the purpura, which resembled the others in locality and appearance of eruption; spots more abundant, larger, and less livid, and bled dangerously from the nose, fauces, bladder and bowels, but recovered.

Are these cases to be classed with purpura which occurs in crowded cities, on board ships, where poverty, filth, bad food and bad air conspire to poison the blood and reduce its vitality?

I will ask also what relation do these three cases hold to two others treated in the fall of 1877? where hemorrhage from the bowels came in connection with a chill, the bleeding being so severe as to endanger the lives of both patients. Of the last two cases, also, one was a boy, 14 years old, and in a poor family, and was probably insufficiently fed, as he was not very warmly clad. The other was a young lady with comfortable surroundings. W. H. Rose, M.D.

Thorntown, Ind.

News and Miscellany.

American Medical Association.

The following rates of fare to Atlanta have been obtained thus far:—

Steamer from New York to Savannah, and rail to Atlanta, $19.50. Both ways, $34.00. Including state rooms and meals on ships.

Railroad, *round trip*—

From Louisville,	$23.85
" New York,	37.25
" Philadelphia,	33.75
" Baltimore,	29.75
" Washington,	27.75

As there may be other points secured, at starting it would be well to ask at railroad office for excursion rates.

Apply to undersigned (with stamp) for certificate, by which only can these rates be obtained.

Wm. B. Atkinson,
Permanent Secretary.
1400 *Pine St., Phila.*

Medical Society of the State of Pennsylvania.

The thirtieth annual session will be held in Chester, on Wednesday, Thursday and Friday, May 21, 22 and 23, 1879, commencing on Wednesday, at 3 P.M.

The address in Medicine by Dr. Andrew Fleming, Alleghany.

Address in Obstetrics by Dr. E. Wallace, Philadelphia.

Address in Surgery by Dr. Charles T. Hunter, Philadelphia.

Address in Hygiene by Dr. R. A. Cleemann, Philadelphia.

Address in Mental Disorders by Dr. James A. Reed, Dixmont.

All who desire orders for excursion tickets should address the undersigned, with stamp, stating route, etc. Wm. B. Atkinson,
Permanent Secretary.
1400 *Pine St., Phila.*

The Yellow Fever on the U. S. Steamer "Plymouth."

The Surgeon General of the U. S. Navy has furnished the following facts in regard to the recent outbreak of yellow fever on board the U. S. Steamer "Plymouth." On November 7th last four cases of yellow fever occurred on board the vessel, while lying in the harbor of Santa Cruz; these were removed to hospital on shore and the ship sailed for Norfolk. Three mild cases occurred during the voyage, and the "Plymouth" was ordered to Portsmouth, N. H., thence to Boston. At the latter port everything was removed from the ship, and all parts of the interior freely exposed to a temperature which frequently fell below zero, the exposure continuing for more than a month. During this time the water in the tanks, bilges, and in vessels placed in the storerooms, was frozen. One hundred pounds of sulphur was burned below decks, this fumigation continuing for two days, and the berth decks, holds and storerooms were thoroughly whitewashed. On March 15th the

ship sailed from Boston southward; on the 19th, during a severe gale, the hatches had to be battened down, and the berth deck became very close and damp. On the 23d two men showed decided symptoms of yellow fever, and on the recommendation of the surgeon the vessel was headed northward. The sick men were isolated, and measures adopted for improving the hygienic condition of the vessel and crew. The surgeon reported that he believed the infection to be confined to the hull of the ship, especially to the unsound wood about the berth deck, all the cases but one having occurred within a limited area; and that while the "Plymouth" is in good sanitary condition for service in temperate climates, should she be sent to a tropical station, probably no precautionary measures whatever would avail to prevent an outbreak of yellow fever.

Personal.

—On the evening of April 24th Dr. Wm. F. Norris will read a paper on "Optic Neuritis as a symptom of Intracranial Disease," at the Lecture Room of the College of Physicians, at 8 P.M. The profession is invited to attend.

—A banquet was given to Prof. S. D. Gross, M.D., on Thursday, April 10th, by the Alumni of the Jefferson Medical College. There was a full attendance, and many pleasant addresses added interest to the occasion.

Items.

—It is flashed in golden words, under the Atlantic, from Berlin, that "the surgeons have succeeded in painlessly extracting a grain of powder which had remained in the Emperor William's head since Nobeling's attempt on his life."

—A death certificate was recently shown us which read thus:—

Name of deceased, Wight.
Color, do

Evidently the member of the profession who wrote it had left his dictionary at home.

—We have before noted the remarkable vitality of pensioners. In fact, a Government pension seems to confer immortality. General Shields, the new Senator elect from Missouri, while recently speaking in favor of the veterans of the Mexican war, asserted that the Pension Bureau had reported to Congress "a larger army of Mexican veterans alive to-day, than ever stood on Mexican soil at one time, with arms in their hands."

OBITUARY NOTICES.

Dr. Isaac Hays

Was born in this city, July 5, 1796, and died April 13th, at his residence, aged eighty-three years. Dr. Hays was educated at the University of Pennsylvania, and graduated in the Department of Arts in 1816, and the Department of Medicine in 1820. He was the editor of the *American Journal of Medical Sciences*, published by Henry C. Lea. In 1826 Dr. Hays joined the editorial staff, and in 1827 became sole editor, and so remained until 1869, when his son was associated with him. At the time of his death Dr. Hays was one of the oldest living editors, having been connected with medical literature over fifty years. He was elected a member of the Academy of Natural Sciences of Philadelphia in 1818, and was its president from 1865 to 1869. He was an active member of the American Philosophical Society, and for a number of years a member of its council.

Dr. Hays edited, with numerous additions, "Lawrence on the Eye," and was the author of many monographs on medical and scientific subjects. In 1828 he edited Wilson's "American Ornithology; in 1846 Hablyn's "Dictionary of Medical Terms;" in 1848 Arnot's "Elements of Physics."

Dr. J. C. Riley,

Dean of the National Medical College of the Columbian University, Washington, D. C., died in that city, in February. He was born in 1828, and had given much attention to materia medica and pharmacy. He was the oldest surviving member of the National Association for revising the U. S. Pharmacopœia, in 1880, and is said to have been the only survivor having authority to call the next meeting of that Association.

MARRIAGES.

CHAFFEE-DOW.—In Strafford, Vt., March 18th, by Rev. Henry Cummings, Fred. F. Chaffee, M.D., and Nellie S., daughter of Chester Dow, Esq.

MILLER—BIERY.—At the residence of the bride's parents, in Southwhitehall, Lehigh Co., Pa., April 3d, 1879, by the Rev. E. T. Fogel, Dr. A. N. Miller, of East Texas, Pa., and Miss E. Jane, eldest daughter of Mr. John Biery.

POWELL—LEDBETTER.—On Wednesday, March 26th, 1879, at the residence of Mr. W. S. G. Wilson, at Rockdale, Texas, Dr. E. J. Powell and Miss Ida Ledbetter.

RONEY—DEITER.—On March 3d, by Rev. H. G. Finney, George W. Roney, M.D., of Pottstown., and Ella S. Deiter, of Pottsville, Pa.

DEATHS.

BROWN.—On Thursday afternoon, March 13th, at 2¼ o'clock, Selina M., wife of Dr. Thomas M. Brown, formerly of Milford, O., in the 69th year of her age.

GREY.—In Hartford, Vt., Feb. 9th, Dr. Joseph Grey, on his 91st birthday.

HARE.—On March 21st, at St. Thomas West Indies, Horace Binney Hare M.D., of Philadelphia.

HAYS.—In this city, on the 12th inst, Isaac Hays, M.D., aged 83 years.

HODGE.—Suddenly, in Brooklyn, N. Y., on Saturday morning, March 15th, of heart disease, Eliza M., eldest daughter of Dr. James L. and S. P. Hodge.

IVES.—On Friday, the 21st ult., at the residence of Dr. Joseph Parrish, Burlington, N. J., Dr. Charles L. Ives, aged 47 years, late of New Haven Ct.

OSTROM.—At Goshen N. Y., on Monday, March 24th, 1879, Emma Charlotte, wife of Dr. J. W. Ostrom.

PENNELL.—On Sunday evening, March, 16th, Carroll Celsus, only son of Dr. W. W. and M. M. Pennell, aged 10 months, 16 days.

VAN TRIES.—At Pennsylvania Furnace, March 8th, 1879, of acute tubercular meningitis, Eleanor Linn, only child of Dr. Thomas C. and Jennie M. Van Tries, aged 4 years and 6 months.

WOOD.—In New York, on the 21st ult., Dr. Jacob Wood, aged 68 years.